The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	<u>09/963,693 B</u>
Source:	1F11/6
Date Processed by STIC:	11-15-2004

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 11/15/2004 TIME: 12:40:01

PATENT APPLICATION: US/09/963,693B

```
1 <110> APPLICANT: Ruvkun, Gary
              Ogg, Scott
      3 <120> TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC TOOLS FOR
              IMPAIRED GLUCOSE TOLERANCE CONDITIONS
      5 <130> FILE REFERENCE: 00786/351004
C--> 6 <140> CURRENT APPLICATION NUMBER: US/09/963,693B
      7 <141> CURRENT FILING DATE: 2001-09-25
      8 <150> PRIOR APPLICATION NUMBER: US/09/205,658
      9 <151> PRIOR FILING DATE: 1998-12-03
     10 <150> PRIOR APPLICATION NUMBER: 08/857,076
     11 <151> PRIOR FILING DATE: 1997-05-15
     12 <150> PRIOR APPLICATION NUMBER: 08/888,534
     13 <151> PRIOR FILING DATE: 1997-07-07
     14 <150> PRIOR APPLICATION NUMBER: US98/10080
     15 <151> PRIOR FILING DATE: 1998-05-15
     16 <160> NUMBER OF SEQ ID NOS: 331
     17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
     19 <210> SEQ ID NO: 1
    20 <211> LENGTH: 20
     21 <212> TYPE: DNA
    22 <213> ORGANISM: Artificial Sequence
    23 <220> FEATURE:
    24 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
    25 <400> SEQUENCE: 1
             cgctacggca aaaaagtgaa
                                                                                       20
    28 <210> SEQ ID NO: 2
    29 <211> LENGTH: 18
    30 <212> TYPE: DNA
    31 <213> ORGANISM: Artificial Sequence
    32 <220> FEATURE:
    33 <223 > OTHER INFORMATION: Primer/probe derived from C. elegans
    34 <400> SEQUENCE: 2
             cgatgatgaa gatacccc
                                                                                      18
    37 <210> SEQ ID NO: 3
    38 <211> LENGTH: 20
    39 <212> TYPE: DNA
    40 <213> ORGANISM: Artificial Sequence
    41 <220> FEATURE:
    42 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
    43 <400> SEQUENCE: 3
             tgatgcgaac ggcgatcgat
                                                                                      20
    46 <210> SEQ ID NO: 4
    47 <211> LENGTH: 20
```

DATE: 11/15/2004 PATENT APPLICATION: US/09/963,693B TIME: 12:40:01

48	<212>	TYPE: DNA	
49	<213>	ORGANISM: Artificial Sequence	
		FEATURE:	
51	<223>	OTHER INFORMATION: Primer/probe derived from C. elegans	
52	<400>	SEQUENCE: 4	
53		acgctggatc atctacatta	20
55	<210>	SEQ ID NO: 5	20
56	<211>	LENGTH: 22	
57	<212>	TYPE: DNA	
58	<213>	ORGANISM: Artificial Sequence	
		FEATURE:	
60	<223>	OTHER INFORMATION: Primer/probe derived from C. elegans	
61	<400>	SEQUENCE: 5	
62		ggtttaatta cccaagtttg ag	22
64		SEQ ID NO: 6	22
65	<211>	LENGTH: 20	
66	<212>	TYPE: DNA	
67	<213>	ORGANISM: Artificial Sequence	
68	<220>	FEATURE:	
69	<223>	OTHER INFORMATION: Primer/probe derived from C. elegans	
70	<400>	SEQUENCE: 6	
71		gctcacgggt cacacaacga	20
		SEQ ID NO: 7	
		LENGTH: 20	
		TYPE: DNA	
		ORGANISM: Artificial Sequence	
		FEATURE:	
78	<223>	OTHER INFORMATION: Primer/probe derived from C. elegans	
		SEQUENCE: 7	
80		tgatgcgaac ggcgatcgat	20
		SEQ ID NO: 8	
		LENGTH: 21	
		TYPE: DNA	
		ORGANISM: Artificial Sequence FEATURE:	
88	<2237 <400<	OTHER INFORMATION: Primer/probe derived from C. elegans SEQUENCE: 8	
89		tgagggccaa ctaaagaaga c	
		SEQ ID NO: 9	21
		LENGTH: 20	
		TYPE: DNA	
		ORGANISM: Artificial Sequence	
		FEATURE:	
		OTHER INFORMATION: Primer/probe derived from C. elegans	
97 .	<400>	SEQUENCE: 9	
98		cgctacggca aaaaagtgaa	20
		SEQ ID NO: 10	20
		LENGTH: 20	
		TYPE: DNA	

DATE: 11/15/2004 PATENT APPLICATION: US/09/963,693B TIME: 12:40:01

```
103 <213> ORGANISM: Artificial Sequence
      104 <220> FEATURE:
     105 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
     106 <400> SEQUENCE: 10
      107
                gacgatcccg aggtgagtat
                                                                                        20
      109 <210> SEQ ID NO: 11
      110 <211> LENGTH: 5816
      111 <212> TYPE: DNA
     112 <213> ORGANISM: Caenorhabditis elegans
      113 <220> FEATURE:
     114 <221> NAME/KEY: misc feature
     115 <222> LOCATION: (1)...(5816)
     116 <223> OTHER INFORMATION: n = A, T, C or G
     117 <400> SEQUENCE: 11
               ggtttaatta cccaagtttg agctccaaga gcacacatct gatcgtcgga ttctactgta
     118
                                                                                        60
               ctccccgaaa aaccaacaagt ttttgaacac ttgtaaatgc agacagaacg
     119
                                                                                       120
               atgacgagaa tgaatattgt cagatgtcgg agacgacaca aaattttgga aaatttggaa
     120
                                                                                       180
               gaagagaatc tcggcccgag ctgctcgtcg acgacttcaa caaccgctgc caccgaagct
     121
                                                                                       240
               ctcggaacaa ccactgagga tatgaggctt aagcagcagc gaagctcgtc gcgtgccacg
     122
                                                                                       300
               gagcacgata ttgtcgacgg caatcaccac gacgacgagc acatcacaat gagacggctt
     123
                                                                                       360
               cgacttgtca aaaattcgcg gacgcggcgt agaacgacgc ccgattcaag tatggactgc
     124
                                                                                       420
               tatgaggaaa acccgccatc acaaaaactt caataaatta ttcttggatt tctaaaaagt
     125
                                                                                       480
               catcaatgac gtcattaatg cttttactgc tattcgcttt tgtacagccg tgtgcctcaa
     126
                                                                                       540
               tagtcgaaaa acgatgcggc ccaatcgata ttcgaaatag gccgtgggat attaagccgc
     127
                                                                                       600
               aatggtcgaa acttggtgat ccgaacgaaa aagatttggc tggtcagaga atggtcaact
     128
                                                                                       660
               gcacagtggt ggaaggttcg ctgacaatct catttgtact gaaacacaag acaaaagcac
     129
                                                                                       720
               aagaagaaat gcatcgaagt ctacagccaa gatattccca agacgaattt atcacttttc
     130
                                                                                       780
               cgcatctacg tgaaattact ggaactctgc tcgtttttga gactgaagga ttagtggatt
     131
                                                                                       840
               tgcgtaaaat tttcccaaat cttcgtgtaa ttggaggccg ttcgctgatt caacactatg
     132
                                                                                       900
               cgctgataat ttatcgaaat ccggatttgg agatcggtct tgacaagctt tccgtaattc
     133
                                                                                       960
               gaaatggtgg tgtacggata atcgataatc gaaaactgtg ctacacgaaa acgattgatt
     134
                                                                                      1020
               ggaaacattt gatcacttct tccatcaacg atgttgtcgt tgataatgct gccgagtacg
     135
                                                                                      1080
     136
               ctgtcactga gactggattg atgtgcccac gtggagcttg cgaagaggat aaaggcgaat
                                                                                      1140
               caaagtgtca ttatttggag gaaaagaatc aggaacaagg tgtcgaaaga gttcagagtt
     137
                                                                                      1200
               gttggtcgaa caccacttgc caaaagtctt gtgcttatga tcgtcttctt ccaacgaaag
     138
                                                                                      1260
               aaatcggacc gggatgtgat gcgaacggcg atcgatgtca cgatcaatgc gtgggcggtt
     139
                                                                                      1320
               gtgagcgtgt gaatgatgcc acagcatgcc acgcgtgcaa gaatgtctat cacaagggaa
     140
                                                                                      1380
               agtgtatcga aaagtgtgat gctcacctgt accttctcct tcaacgtcgt tgtgtgaccc
     141
                                                                                      1440
               gtgagcagtg tctgcagctg aatccggtgc tctcgaacaa aacagtgcct atcaaggcga
     142
                                                                                     1500
               cggcaggcct ttgctcggat aaatgtcccg atggttatca aatcaacccg gatgatcatc
     143
                                                                                     1560
     144
               gagaatgccg aaaatgcgtt ggcaagtgtg agattgtgtg cgagatcaat cacgtcattg
                                                                                     1620
               atacgtttcc gaaggcacag gcgatcaggc tatgcaatat tattgacgga aatctgacga
     145
                                                                                     1680
               tcgagattcg cggaaaacag gattcgggaa tggcgtccga gttgaaggat atatttgcga
     146
                                                                                     1740
     147
               acattcacac gatcaccggc tacctgttgg tacgtcaatc gtcaccgttt atctcgttga
                                                                                     1800
               acatgttccg gaatttacga cgtattgagg caaagtcact gttcagaaat ctatatgcta
     148
                                                                                     1860
               tcacagtttt tgaaaatccg aatttaaaaa agctattcga ttcaacgacg gatttgacgc
     149
                                                                                     1920
     150
               ttgatcgtgg aactgtgtca attgccaata acaagatgtt atgcttcaag tatatcaagc
                                                                                     1980
               agctaatgtc aaagttaaat ataccactcg atccgataga tcaatcagaa gggacaaatg
     151
                                                                                     2040
               gtgagaaggn aatctgtgag gatatggcaa tcaacgtgag catcacagcg gtcaacgcgg
W--> 152
                                                                                     2100
```

DATE: 11/15/2004 PATENT APPLICATION: US/09/963,693B TIME: 12:40:01

153	actcggtctt	ctttagttgg	ccctcattca	a acattaccga	. tatagatcag	cgaaagtttc	2160
154	tcggctacga	gctcttcttc	aaagaagtco	c cacgaatcga	ı tgagaacatg	acgatcgaag	2220
155	aggatcgaag	tgcgtgtgtc	gattcgtggc	agagtgtctt	caaacagtac	tacgagacgt	2280
156	cgaacggtga	accgaccccg	gacattttta	ı tggatattgg	accgcgcgag	cgaattcggc	2340
157	cgaatacgct	ctacgcgtac	tatgtggcga	ı cgcagatggt	gttgcatgcc	ggtgcgaaga	2400
158	acggtgtatc	gaagattggt	tttgtgagga	a cgagctacta	. tacgcctgat	cctccgacgt	2460
159	tggcactagc	gcaagtcgat	tcggacgcta	ttcatattac	gtgggaagcg	ccgctccaac	2520
160	cgaacggaga	cctcacgcat	tacacaatta	ı tgtggcgtga	gaatgaagtg	agcccgtacg	2580
161	aggaagccga	aaagttttgt	acagatgcaa	gcacccccgc	aaatcgacaa	cgcacgaaag	2640
162	atccgaaaga	gacgattgta	gccgataagc	: cagtcgatat	tccgtcatca	cgtaccgtag	2700
163	ctccgacact	tttgactatg	atgggtcacg	, aagatcagca	gaaaacgtgc	gctgcaacgc	2760
164	ccggttgttg	ttcgtgttcg	gctatcgaag	, aatcatcgga	acagaacaag	aagaagcgac	2820
165	cggatccgat	gtcggcgatc	gaatcatctg	r catttgagaa	taagctgttg	gatgaggttt	2880
166	taatgccgag	agacacgatg	cgagtgagac	gatcaattga	agacgcgaat	cgagtcagtg	2940
167	aagagttgga	aaaagctgaa	aatttgggaa	aagctccaaa	aactctcggt	ggaaagaagc	3000
168	cgctgatcca	tatttcgaag	aagaagccgt	cgagcagcag	caccacatcc	acaccggctc	3060
169	caacgatcgc	atcaatgtat	gccttaacaa	ggaaaccgac	tacggtgccg	ggaacaagga	3120
170	ttcggctcta	cgagatctac	gaacctttac	ccggaagctg	ggcgattaat	gtatcagctc	3180
171	tggcattgga	taatagttat	gtgatacgaa	atttgaagca	ttacacactt	tatgcgattt	3240
172	ctctatccgc	gtgccaaaac	atgacagtac	ccggagcatc	ttgctcaata	tcccatcgtg	3300
173	cgggagcatt	gaaacgaaca	aaacacatca	cagacattga	taaagtgttg	aatgaaacaa	3360
174	ttgaatggag	atttatgaat	aatagtcaac	aagtcaacgt	gacgtgggat	ccaccgactg	3420
175	aagtgaatgg	tggaatattc	ggttatgttg	taaagcttaa	gtcaaaagtc	gatggatcaa	3480
176	ttgttatgac	gagatgtgtc	ggtgcgaaga	gaggatattc	aacacggaat	cagggtgtcc	3540
177	tattccagaa	tttggccgat	ggacgttatt	ttgtctcagt	aacggcgacc	tctgtacacg	3600
178	gcgctggacc	ggaagccgaa	tcctccgacc	caatcgtcgt	catgacgcca	ggcttcttca	3660
179	ctgtggaaat	cattctcggc	atgcttctcg	tctttttgat	tttaatgtca	attgccggtt	3720
180	gtataatcta	ctactacatt	caagtacgct	acggcaaaaa	agtgaaagct	ctatctgact	3780
181	ttatgeaatt	gaatcccgaa	tattgtgtgg	acaataagta	caatgcagac	gattgggagc	3840
182	tacggcagga	tgatgttgtg	ctcggacaac	agtgtggaga	gggatcattc	ggaaaagtgt	3900
183 184	acctaggaac	tggaaataat	gttgtttctc	tgatgggtga	tcgtttcgga	ccgtgtgcta	3960
185	ttaagattaa	tgtagatgat	ccagcgtcga	ctgagaatct	caactatctc	atggaagcta	4020
186	tagaa	gaactttaag	actaacttta	tcgtccaact	gtacggagtt	atctctactg	4080
187	Lacaaccagc	gatggttgtg	atggaaatga	tggatcttgg	aaatctccgt	gactatctcc	4140
188	gategaaaeg	cgaagacgaa	gtgttcaatg	agacggactg	caactttttc	gacataatcc	4200
189	cgagggataa	attccatgag	tgggccgcac	agatttgtga	tggtatggcg	tacctggagt	4260
190	cgctcaagtt	ttgccatcga	gatctcgccg	cacgtaattg	catgataaat	cgggatgaga	4320
190	cigicaagat	tggagatttc	ggaatggctc	gtgatctatt	ctatcatgac	tattataagc	4380
191	categggeaa	gcgtatgatg	cctgttcgat	ggatgtcacc	cgagtcgttg	aaagacggaa	4440
192	agtitigacte	gaaatctgat	gtttggagct	tcggagttgt	tctctatgaa	atggttacac	4500
193	reggractea	gccatatatt	ggtttgagta	atgatgaggt	gttgaattat	attggaatgg	4 560
194	cccggaaggt	tatcaagaag	cccgaatgtt	gtgaaaacta	ttggtataag	gtgatgaaaa	4620
	tgtgetggag	atactcacct	cgggatcgtc	cgacgttcct	ccagctcgtt	catcttctag	4680
196 197	taattaaaa	ttcaccagaa	ttccgagatt	tatcatttgt	cctaaccgat	aatcaaatga	4740
197	lectigacga	rtcagaagca	ctggatcttg	atgatattga	tgatactgat	atgaatgatc	4800
198	aggitgicga	ggtggcaccg	gatgttgaga	acgtcgaggt	tcagagtgat	tcggaacgtc	4860
	gyaatacgga	rcaataccg	ttgaaacagt	ttaagacgat	ccctccgatc	aatgcgacga	4920
200	cgagicatic	yacaatatcg	attgatgaga	caccgatgaa	agcgaagcag	cgagaaggat	4980
201	egerggatga	ggagtacgca	ttgatgaatc	atagtggagg	tccgagtgat	gcggaagttc	5040

DATE: 11/15/2004 PATENT APPLICATION: US/09/963,693B TIME: 12:40:01

```
ggacgtatgc tggtgatgga gattatgtgg agagagatgt tcgagagaat gatgtgccaa
202
                                                                                  5100
           cgcgacgaaa tactggtgca tcaacatcaa gttacacagg tggtggtcca tattgcctaa
203
                                                                                  5160
           caaatcgtgg tggttcaaat gaacgaggag ccggtttcgg tgaagcagta cgattaactg
204
                                                                                  5220
          atggtgttgg aagtggacat ttaaatgatg atgattatgt tgaaaaagag atatcatcca
205
                                                                                  5280
           tggatacgcg ccggagcacg ggcgcctcga gctcttccta cggtgttcca cagacgaatt
206
                                                                                  5340
          ggagtggaaa tcgtggtgcc acgtattata cgagtaaagc tcaacaggca gcaactgcag
207
                                                                                  5400
          cagcagcagc agcagcagct ctccaacagc aacaaaatgg tggtcgaggc gatcgattaa
208
                                                                                  5460
          ctcaactacc cggaactgga catttacaat cgacacgtgg tggacaagat ggagattata
209
                                                                                 5520
          ttgaaactga accgaaaaat tatagaaata atggatctcc atcgcgaaac ggcaacagcc
210
                                                                                 5580
          gtgacatttt caacggacgt tcggctttcg gtgaaaatga gcatctaatc gaggataatg
211
                                                                                 5640
          agcatcatcc acttgtctga aacccccaaa aaatcccgcc tcttaaatta taaattatct
212
                                                                                 5700
          cccacattat catatctcta cacgaatatc ggatttttt tcagattttt tctgaaaaat
213
                                                                                 5760
          tctgaataat tttaccccat ttttcaaatc tctgtatttt tttttgttat tacccc
214
                                                                                 5816
216 <210> SEQ ID NO: 12
217 <211> LENGTH: 1724
218 <212> TYPE: PRT
219 <213> ORGANISM: Caenorhabditis elegans
220 <400> SEQUENCE: 12
          Met Thr Ser Leu Met Leu Leu Leu Phe Ala Phe Val Gln Pro Cys
221
222
                            5
223
          Ala Ser Ile Val Glu Lys Arg Cys Gly Pro Ile Asp Ile Arg Asn Arg
224
                       20
                                           25
          Pro Trp Asp Ile Lys Pro Gln Trp Ser Lys Leu Gly Asp Pro Asn Glu
225
226
                                       40
227
          Lys Asp Leu Ala Gly Gln Arg Met Val Asn Cys Thr Val Val Glu Gly
228
                                   55
229
          Ser Leu Thr Ile Ser Phe Val Leu Lys His Lys Thr Lys Ala Gln Glu
230
          65
                               70
                                                   75
231
          Glu Met His Arg Ser Leu Gln Pro Arg Tyr Ser Gln Asp Glu Phe Ile
232
                          85
                                               90
          Thr Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu
233
234
                      100
                                           105
          Thr Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val
235
236
                  115
                                       120
237
          Ile Gly Gly Arg Ser Leu Ile Gln His Tyr Ala Leu Ile Ile Tyr Arg
238
              130
                                  135
          Asn Pro Asp Leu Glu Ile Gly Leu Asp Lys Leu Ser Val Ile Arg Asn
239
240
          145
                              150
                                                   155
          Gly Gly Val Arg Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys Thr
241
242
                          165
                                               170
243
          Ile Asp Trp Lys His Leu Ile Thr Ser Ser Ile Asn Asp Val Val
244
                      180
                                          185
245
          Asp Asn Ala Ala Glu Tyr Ala Val Thr Glu Thr Gly Leu Met Cys Pro
246
                  195
                                      200
          Arg Gly Ala Cys Glu Glu Asp Lys Gly Glu Ser Lys Cys His Tyr Leu
247
248
                                  215
                                                       220
          Glu Glu Lys Asn Gln Glu Gln Gly Val Glu Arg Val Gln Ser Cys Trp
249
                                                                       240
          Ser Asn Thr Thr Cys Gln Lys Ser Cys Ala Tyr Asp Arg Leu Leu Pro
251
```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/963,693B

DATE: 11/15/2004 TIME: 12:40:02

Input Set : N:\Crf3\RULE60\09963693b.raw.txt
Output Set: N:\CRF4\11152004\I963693B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:11; N Pos. 2050
Seq#:31; N Pos. 3,12,15,18,21
Seq#:32; N Pos. 7,8,9,12,15
Seq#:115; Xaa Pos. 4,5,11,12,16,37,38,39,41,42,43,47
Seq#:126; Xaa Pos. 20,21,22
Seq#:127; Xaa Pos. 20,21,22
Seq#:128; Xaa Pos. 20,21,22
Seq#:129; Xaa Pos. 20,21,22
Seq#:130; Xaa Pos. 20,21,22
Seq#:131; Xaa Pos. 20,21,22
Seq#:132; Xaa Pos. 20,21,22
Seq#:133; Xaa Pos. 20,21,22
Seq#:134; Xaa Pos. 20,21,22
Seq#:135; Xaa Pos. 20,21,22
Seq#:136; Xaa Pos. 20,21,22
Seq#:137; Xaa Pos. 20,21,22
Seq#:138; Xaa Pos. 20,21,22
Seq#:139; Xaa Pos. 20,21,22
Seq#:140; Xaa Pos. 20,21,22
Seq#:141; Xaa Pos. 20,21,22
Seq#:142; Xaa Pos. 20,21,22
Seq#:143; Xaa Pos. 20,21,22
Seq#:144; Xaa Pos. 20,21,22
Seq#:145; Xaa Pos. 20,21,22
Seq#:146; Xaa Pos. 20,21,22
Seq#:147; Xaa Pos. 20,21,22
Seq#:148; Xaa Pos. 20,21,22
Seq#:149; Xaa Pos. 20,21,22
Seq#:150; Xaa Pos. 20,21,22
Seq#:151; Xaa Pos. 20,21,22
Seq#:152; Xaa Pos. 20,21,22
Seq#:153; Xaa Pos. 20,21,22
Seq#:238; Xaa Pos. 84,85,86,87,88,89,90,91,92,93,94,95,96
Seq#:304; Xaa Pos. 4,5
Seq#:318; N Pos. 6
Seq#:323; Xaa Pos. 2,3,5,6
```

VERIFICATION SUMMARY

DATE: 11/15/2004 PATENT APPLICATION: US/09/963,693B TIME: 12:40:02

Input Set : N:\Crf3\RULE60\09963693b.raw.txt Output Set: N:\CRF4\11152004\I963693B.raw

L:6 M:270 C: Current Application Number differs, Wrong Format L:152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:2040 L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0 L:756 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0 L:3184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115 after pos.:0 M:341 Repeated in SeqNo=115 L:3394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 after pos.:16 L:3410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127 after pos.:16 L:3426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:128 after pos.:16 L:3442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129 after pos.:16 L:3458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:130 after pos.:16 L:3474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:131 after pos.:16 L:3490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:132 after pos.:16 L:3506 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133 after pos.:16 L:3522 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134 after pos.:16 L:3538 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:135 after pos.:16 L:3554 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:136 after pos.:16 L:3570 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137 after pos.:16 L:3586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138 after pos.:16 L:3602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139 after pos.:16 L:3618 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140 after pos.:16 L:3634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141 after pos.:16 L:3650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:142 after pos.:16 L:3666 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143 after pos.:16 L:3682 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144 after pos.:16 L:3698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:145 after pos.:16 L:3714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:16 L:3730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147 after pos.:16 L:3746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:148 after pos.:16 L:3762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:149 after pos.:16 L:3778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150 after pos.:16 L:3794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:16 L:3810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152 after pos.:16 L:3826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:153 after pos.:16 L:5600 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:238 after pos.:80 L:6421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:304 after pos.:0 L:6904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:318 after pos.:0 L:6944 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:323 after pos.:0